

CLAIMS

What is claimed is:

1. An apparatus comprising:
 - a support substrate comprising a plurality of first support contacts and a plurality of second support contacts on a surface of the support substrate;
 - a chip comprising a plurality of circuits coupled to respective ones of a plurality of externally accessible chip contacts, wherein the chip contacts are coupled to respective ones of the first support contacts;
 - a plurality of fusible masses coupled to respective ones of the plurality of second support contacts;
 - an electrically-insulating encapsulant on the support substrate and the chip.
2. The apparatus of claim 1, wherein the plurality of fusible masses have a thickness at least equivalent to the thickness of the encapsulant measured from the surface of the support substrate at one of the plurality of fusible masses.
3. The apparatus of claim 2, wherein the encapsulant is present in an amount to encapsulate the chip and encapsulate a portion of respective ones of the plurality of fusible masses.
4. The apparatus of claim 1, wherein the support substrate is a first support substrate and the plurality of second support contacts are positioned on the first support substrate to align with contacts of a second support substrate.
5. The apparatus of claim 4, wherein the plurality of second supports are positioned around the periphery of the support substrate.
6. The apparatus of claim 1, wherein the support substrate is a first support substrate, the apparatus further comprising a second support substrate comprising a plurality of second support contacts on a surface thereof, the plurality of second support contacts coupled directly to respective ones of the plurality of fusible masses.

7. An apparatus comprising:
 - a first support substrate comprising at least one circuit structure and a plurality of first support contacts on a first surface thereof, the plurality of first support contacts electrically coupled to respective ones of circuits of the at least one circuit structure;
 - a plurality of fusible masses on respective ones of the plurality of first support contacts;
 - an electrically-insulating encapsulant on the first support substrate and on the at least one circuit structure;
 - a second support substrate comprising at least one circuit structure on a first surface thereof and having a plurality of second support contacts on a second surface thereof and coupled to respective ones of the plurality of fusible masses, the plurality of second support contacts electrically coupled to respective ones of circuits of the at least one circuit structure.
8. The apparatus of claim 7, wherein the at least one circuit structure on the first support substrate comprises a microprocessor and the at least one circuit structure on the second support substrate comprises a memory.
9. The apparatus of claim 7, wherein the plurality of fusible masses have a thickness at least equivalent to the thickness of the encapsulant measured from the surface of the first support substrate at one of the plurality of fusible masses.
10. The apparatus of claim 2, wherein the encapsulant is present in an amount to encapsulate the circuit structure and encapsulate a portion of respective ones of the plurality of fusible masses.
11. The apparatus of claim 7, wherein the plurality of support contacts of the first support substrate are positioned around the periphery of the first support substrate.
12. A method comprising:

forming a plurality of fusible masses on respective ones of a plurality of externally accessible support contacts on a surface of a support substrate, the substrate further comprising a circuit structure on the surface; and

encapsulating a portion of the support substrate and the circuit structure with an electrically insulating encapsulant.

13. The method of claim 13, wherein encapsulating further comprises encapsulating less than an entire portion of each of the plurality of fusible masses.

14. The method of claim 13, wherein encapsulating further comprises encapsulating on the order of 75 percent to 90 percent of each of the plurality of fusible masses.

15. The method of claim 12, wherein the support substrate comprises a first support substrate, the method further comprising, coupling a second support substrate to the first support substrate through the plurality of fusible masses